

ABSTRACT OF THE DISCLOSURE

A fast search method for searching for an optimum codeword for nearest neighbor vector quantization. An upper boundary value and a lower boundary value
5 between which an optimum codeword will exist in a codebook are calculated using a distortion of a designated element in an input vector and an experimentally determined threshold. Further, a start point and an end point for codebook search are determined using a binary search method from a codebook rearranged in descending order, and a full search scheme is applied only within a search range calculated by the determined
10 start point and end point, thereby determining an optimum codeword for nearest neighbor vector quantization.